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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/645,609 | 08/22/2003 | Ho Soo Lee | YOR920030228US1 | 8585 |

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| EXAMINER |
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GREIMEL, JOCELYN

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| ART UNIT | PAPER NUMBER |
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3693

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| MAIL DATE | DELIVERY MODE |
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01/10/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/645,609

Applicant(s)

LEE ET AL.

Examiner

Jocelyn Greimel

Art Unit

3693

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This communication is in response to Applicant's application filed 22 August 2003. Claims 1-24 are currently pending. Claims 1, 17 and 22 are independent claims.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Sandholm (U.S. Patent Pub. No. 2004/0024686 A1).** In reference to claims 1 and 17, Sandholm discloses a method, system and apparatus for an interactive bid evaluation for a combinatorial auction, comprising: scaling a plurality of bids and items displayed on a display window (0012-0019).

3. In reference to claims 22-24, Sandholm discloses a method, system and computer-readable medium of evaluating bids in a combinatorial auction, comprising: structuring bid and item information on a visual interface of a display; and providing an analysis capability for facilitating evaluation and selection of at least one solution encompassing bids, wherein said visual interface allows a user to directly manipulate

data points in the visual interface to explore an information space of potential solutions and suppliers and to discover at least one solution optimal to the user's needs (0012-0019, 0049, 0061+, 0102, 0109).

4. In reference to the dependent claims 2-16, 18-21 and 23-24, Sandholm discloses a method, system and apparatus/computer-readable medium or code for an interactive bid evaluation system for a combinatorial auction, comprising:

- a. wherein said display scales viewable objects representing said bids and items, such that as a number of bids and items increases, a size of said viewable objects representing said bids and objects decreases (0015-0019);
- b. wherein each of said bids and items is displayed, regardless of a number of said bids and items (0015-0019);
- c. wherein said display includes a real-time recommendation window for providing at least one recommendation on what action to take next in generating an ad hoc solution (0109);
- d. wherein said display displays supporting information including any of items, bids, constraints, analysis, and results, and candidate optimal solutions on said display, to allow interactive selection of an optimal solution from the bid evaluation system, said supporting information providing a visualization of how the optimal solution satisfies a demand for each item and each constraint thereon (0109);
- e. wherein said display comprises a user interface for presenting solutions and supporting information in an intuitively understandable visual representation,

and for providing visual operations on graphical entities of the visual representation (0047-0050; 0109);

f. further comprising a processor coupled to said display, wherein said display comprises a mechanism for enabling a user to interactively generate an ad hoc solution by using visual operations, and for comparing the solutions with an optimal solution generated by said processor (0047-0050; 0109);

g. wherein said display includes: a dynamic mechanism for enabling a user to dynamically update auction parameters including any of items in the auction, bundle bids under consideration, and changing constraints and a reserve price; and a mechanism for generating ad hoc and optimal solutions iteratively for exploratory analysis (0061-0069; 0114);

h. wherein said display includes a mechanism for enabling a user to generate interactively an optimal solution for an auction after pre-assigning at least one bundle bid to a winning bid pool (0061-0069; 0114);

i. further comprising a user input device coupled to said display, wherein said display includes a mechanism for enabling a user to enforce said at least one recommendation by using said user input device (0047-0050; 0061-0069; 0114);

j. wherein said display comprises an iconic user interface including an analysis window which allows said scaling (0015-0019);

k. wherein said iconic user interface further comprises any of an item list window, a bid list window, a constraint window, a result window, a result detail

window, a recommendation window, an item detail window, and a bid detail Window interactively coupled to said analysis window (0015-0019; 0047-0050; 0061-0069; 0114);

l. wherein said analysis window displays a bundle demand and a set of submitted bundle bids, wherein said item list window displays a list of all items the user desires to procure and a demanded amount for each item, said item list window allowing the user to any of select and de-select at least one item that the user desires to any of include and exclude, respectively, in the analysis window, and wherein, as the bundle demand in the analysis window is updated by the user's item selection operation in the item list window, the set of bundle bids displayed in the analysis window is updated (0015-0019; 0047-0050; 0061-0069; 0114);

m. further comprising a pointing device, wherein said item detail window is openable from the item list window by using an operation of said pointing device, said item detail window for displaying information about a particular item, wherein said bid list window displays a list of all the submitted bundle bids and allows the user to any of select and de-select at least one bid that the user wants to any of include and exclude, respectively, in the analysis window, and wherein said bid detail window is openable from the bid list window by using an operation of said pointing device, and displays various information about a particular bid, including a bid thumbnail image, a supplier information, and a product information bundled in a bid (0015-0019; 0047-0050; 0061-0069; 0114);

- n. wherein the constraint window displays a list of constraints applicable to the current auction setting presented in the analysis window, and enables the user to dynamically update values of constraints and apply the values to the bid evaluation in the analysis window, wherein the result window groups and displays, in a hierarchical tree structure, solutions for various combinatorial auction bid evaluation problems set up in the analysis window, so as to classify different solutions hierarchically in the result window, wherein a new bid evaluation problem is created by changing the values in the item list window, the bid list window, and the constraint window (0015-0019; 0047-0050; 0061-0069; 0114);
- o. wherein when a bid evaluation problem is determined in the analysis window, said bid evaluation problem is selectively added to the result window (0015-0019);
- p. wherein the result detail window is openable from the result window by using said pointing device to present detailed information on a particular solution, wherein the recommendation window provides at least one recommendation for each iteration in generating an ad hoc solution for a combinatorial auction bid evaluation problem, to allow said user to directly enforce the recommendation in the recommendation window, and wherein if a predetermined supplier makes a bid, then said bid by said predetermined supplier is automatically selected (0015-0019; 0047-0050; 0061-0069; 0114).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- q. Das et al (US Patent Pub. No. 2002/0147675A1)
- r. Wurman (US Patent No. 7,133,841 B1)
- s. Sandholm et al (US Patent Pub. No. 2003/0195835 A1)
- t. Boutilier (US Patent Pub. No. 2004/0010461 A1).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jocelyn Greimel whose telephone number is (571) 272-3734. The examiner can normally be reached on Monday - Friday 8:30 AM - 4:30 PM EST.

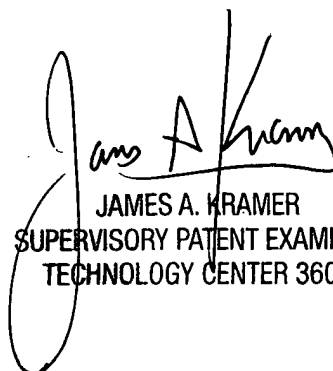
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Kramer can be reached on (571) 272-6783. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jocelyn Greimel
Examiner, Art Unit 3693
January 3, 2008

 1/3/08
JAMES A. KRAMER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600